



Centerline

An Environmental News Quarterly, From the NCDOT Office of Natural Environment

Viewpoint: Six Months of On the Job Training

By: Greg Thorpe, Ph.D., Manager, Project Development and Environmental Analysis
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When I first came to the NC Department of Transportation six months ago, I knew I would be facing a steep learning curve. I quickly realized



I had a great deal more to learn about the development, assessment and permitting of transportation projects than I had imagined. After working at the NC Department of Environment and Natural Resources' (DENR) Division of Water Quality for 15 years, I certainly was familiar with the 401 Water Quality Certification Process, but

it became immediately apparent that I had a lot more to learn. Prior to starting this job, I participated in joint NCDOT, NCDENR and USACE permit and mitigation-related process improvement efforts for a year and a half. This gave me a broad background in the overall project development process. But, none of my prior experience had prepared me for the complexity and the multitude of processes involved in the planning, development, permitting, construction and maintenance of

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Philip S. Harris, III, P.E. is Named Manager of the Office of Natural Environment

By: Christie Murphy
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Phil Harris has recently been promoted to Manager of the Office of Natural Environment. Phil joined the Department in 1993 as a Project Planning Engineer in the Planning and Environmental Branch. He worked as a Project Planning Engineer in the Consultant Unit until 1997 at which time he became the Wetland Mitigation Coordinator within the Natural Systems Unit. He assumed the position of Natural Systems Unit Head in 1999.

In 2000, Phil became Assistant Manager where he assisted in day-to-day operations of the Office of Natural Environment. In his Assistant role, Phil also served as Consultant Coordinator for the Natural Environment "on-call" consultant contracts. He also helped facilitate communication between the various units of the Office of Natural Environment and pioneered the use of the PAWS monthly scheduling database.

Phil is originally from Washington, North Carolina. He is a graduate of North Carolina State University with a Bachelors of Science degree in Civil Engineering. Phil went on to receive a Masters in Coastal Engineering from the University of Florida.

In his new role as Manager, Phil plans to build on the progress that was made by his predecessor, V. Charles Bruton, Ph.D. Continued partnering with the environmental regulatory agencies, providing Natural Resource expertise to other Units/Branches within the Department, and maintaining the "family atmosphere" within the Office will be at the top of his list of goals.

Phil, the staff would like to wish you the very best in your new role and we offer you our full support. Phil can be reached at (919) 715-1384.



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Defending NCDOT on the Environment

By: Fred Lamar, Assistant Attorney General, North Carolina Attorney General's Office **
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When I meet someone who asks me what I do, and I tell them that I practice environmental law, their initial reaction is typically very positive, because, after all, the “practice of environmental law” sounds good for the environment, and how could anyone be against the environment? Although I know I shouldn't elaborate, I feel an obligation to clarify what type of environmental law I practice, so I explain, “I work as an Assistant Attorney General,” I continue, hesitantly, “and I represent the Department of Transportation.” What began as a very positive, bright-eyed facial expression on my listener turns into more of a blank stare. “They don't understand,” I think to myself, “they can't see what the DOT has to do with protecting the environment. They thought I worked for some environmental interest group or for the Environmental Division of the Attorney General's Office responsible for enforcing environmental laws that protect the environment and prosecute ‘polluters.’” I know I should stop at that point and just ask, “So, what do you do?” But my penchant for full disclosure compels me to continue. “You see, I practice environmental defense. I defend NCDOT on the environment.” “Oh,” is a typical response, “I see.”

Although the actions of NCDOT often have an impact on the environment, the legal truth is that NCDOT is not similarly situated to other large, for-profit corporate entities that also impact the environment. In addition to being a public, governmental agency which must serve the transportation needs of the citizens of the State of North Carolina, NCDOT must comply with NCEPA and NEPA laws, unlike the private sector.

NCEPA and NEPA

NCDOT is in a unique position, being a state agency, when it comes to compliance with environmental laws and regulations. In addition to having to comply with state and federal laws and regulations intended to protect environmental resources such as waters of the State, the air, and natural habitats, NCDOT must follow certain procedures before approving a project that significantly impacts the environment. The North Carolina Environmental Policy Act (NCEPA, N.C.G.S. §§ 113A-1 *et seq.*) and, for federal-aid projects, the National Environmental Policy Act (NEPA, 42 U.S.C. §§ 4321-4347), require the subject state or federal agency to prepare necessary environmental document(s) before approving a project that has a significant impact on the environment.

Procedural vs. Substantive Law

As onerous as it is to prepare an EA or EIS, there are no “substantive” legal requirements that the environmental document must contain specific information. NEPA and NCEPA are essentially procedural, requiring

that a certain process be followed, not that there be a particular outcome or that a specific showing be made by the agency. This legal requirement contrasts with substantive legal requirements such as those governing water quality certification and Section 404 permit application requirements, which require the applicant to make a specific showing that the subject project avoids or minimizes impacts (to the extent practicable) and that appropriate mitigation is provided to offset unavoidable project impacts.

What is a “Hard Look”?

If NCEPA and NEPA are procedural legal requirements, and not substantive, what standard does a court use to determine if an agency did in fact comply with the requisite “procedure.” Clearly, it is not enough for an agency to provide proof that a document exists entitled “Environmental Assessment” or “Final Environmental Impact Statement,” and that such documents were circulated to the affected public; or that public hearings were held on a certain date and that the agency received comments from the public, interested organizations, local governments, and resource and regulatory agencies. Instead, the courts have determined that proper compliance with the requisite procedure will have the end result of forcing the agency to conduct a hard look at the environmental consequences of its actions. However, in evaluating whether there was a hard look, the court cannot interject itself into the area of discretion of the agency responsible for decision making. (*See Kleppe v. Sierra Club*, 427 U.S. 390 (1976)). Clearly, the purpose of NCEPA and NEPA is not to force agencies to avoid any decision that may adversely impact the environment. Instead, by following the procedure dictated by NCEPA and NEPA, and taking a hard look at the range of potential environmental consequences of the agency's proposed project, the decision maker will inevitably weigh many factors and make an informed decision before approving a project. In other words, no single factor, or single potential environmental impact, taken alone, can make one reasonable and feasible alternative the wrong alternative to approve (with the exception of “Section 4(f)” considerations under USDOT law, which are not addressed here). Instead, each reasonable and feasible alternative and its respective potential environmental impacts must be evaluated in their totality. The courts, therefore, will typically defer to the expertise of an agency, so long as the record shows that the agency made a serious inquiry into the potential environmental effects of its proposed action. The question remains then, under what circumstances would a court find the agency failed to comply with NEPA/NCEPA?

“Arbitrary, Capricious, an Abuse of Discretion, or

transportation projects.

The excellent transportation infrastructure in this country and in this State, in particular, is one of those readily available, easily accessible amenities that we tend to take for granted during our daily travels. We all complain, from time to time, about long cycling signal lights, potholes, and the seeming inability of local road construction to keep up with burgeoning population growth and the resultant traffic jams! I recall once complaining about being stuck in traffic during an especially agitating Christmas shopping trip with my young daughter who admonished, with wisdom beyond her years, "Dad, we are the traffic!" The fact is that, most of the time, our transportation system gets us where we need to go safely and efficiently. I believe, though, that the general driving public has little knowledge of the amount and kinds of work that go into each of the State's major projects.

As I mentioned earlier, I was generally familiar with the project development and permitting process, including the Merger process, when I began work with the Project Development and Environmental Analysis (PDEA) branch. I was not aware of all the data collection and coordination efforts in which the PDEA staff is involved on a daily basis. I was surprised, especially, by those aspects of the project development process that I had no prior knowledge of, at all, such as the archeological studies that may need to be completed as part of the analysis of a project's potential impacts. As I'm sure many of our readers are aware, staff archaeologists conduct field surveys and research to determine whether a project will affect important historic or prehistoric archaeological sites. Some sites may warrant protection in place, while others may be excavated, so that all the historic data is recovered from the site. Staff architectural survey project areas for old or historic buildings, sites, districts, or structures which may be on or eligible for the National Register of Historic Places. Efforts are made to avoid historic buildings and places, but when impacts are unavoidable, the architectural historians will develop mitigation plans to minimize impacts. These may involve moving a historic building or giving away a historic bridge. The archeological studies are just one of a myriad of cultural and natural resources studies that must be completed in support of the environmental analysis of a project's impacts.

The natural resource studies that are conducted as part of the project development process include surveys of wetlands and streams, high quality biotic communities, and federally protected threatened or endangered species and their habitats. While these studies are ongoing, other staff engineers study air quality and noise impacts of projects. Staff study air quality in the vicinity of highway projects to ensure that the highway improvements will not adversely affect air quality. Meanwhile, community impact assessments are conducted in conjunction with environmental impact studies to evaluate the effects of a transportation project on a community and its quality of life. This process is an integral part of project development that reflects issues important to residents regarding their neighborhoods' and communities'

mobility, safety, employment, stability, relocation, as well as other issues. And, all of this is either in preparation for or ongoing while the Project Engineer steers the project through the Merger Process with the resource agencies and the public. But, those aspects of the project development process will have to wait for another time to be further elucidated.

The point is, there's an awful lot going on and an awful lot still left to learn. One thing I have learned for certain is that our staff are our most important and most valuable resource, and whatever else I have learned, I owe to their diligence and patience in educating me. For that I am grateful, and I thank them for it. While I'm at it, I would like to thank, too, all the folks from Statewide Planning, Program Development, Pre-Construction, Operations, Human Resources, Public Information and everyone else who have made me welcome and helped me learn the ropes during my first six months with the NCDOT Team. I'm enjoying the journey, and I'm glad to be here.

(Defending NCDOT Continued from Page 2)

Otherwise not in Accordance with Law"

The decision by an agency to approve an activity or project that is subject to NEPA or NCEPA, is considered to be an administrative decision, subject to judicial review under the prescribed statute(s). Both the federal government and the State of North Carolina have an administrative procedure act that allows for judicial review of agency decisions, including those that stem from the preparation of environmental documents. An agency decision should not be made invalid, unless the reviewing court finds that the subject agency action was "arbitrary, capricious, an abuse of discretion or otherwise not in accordance with law." Therefore the "standard of review" is relatively high, meaning there must be clear and convincing evidence that the agency acted improperly.

Conclusion

Although the legal requirements of NEPA and NCEPA are procedural in nature and focus on process rather than a certain, substantive showing, the "hard look" standard applied by the courts arguably can be a high standard. As technology and information become more refined and accessible, the "hard look" bar is raised, and agency decisions made pursuant to NEPA or NCEPA will continue to be challenged.

****This article represents the opinion of the author only. It has not been reviewed by the NC Attorney General's office and does not necessarily represent the opinion of the Attorney General's Office.**

¹ 5 U.S.C.S. § 706(2)(A) for NEPA related decisions. The NC EPA wording is slightly different, but has the same meaning.

Looking Back and Moving Ahead

By: Jamie Shern, Division 4 Environmental Officer
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DEO Prospective: Featuring an article from a Division Environmental Officer.

This quarter's segment is brought to us by Division 4, located in the Coastal Plain Region of the state.

I can remember working as a private consultant in the early nineties and observing some pretty disturbing abuses to the environment. Some of which were associated with NCDOT projects. Of course that was back in the day when applicants could get a Nationwide 26 to fill 9.99 acres of wetlands, and then stack on a 299 foot long bridge crossing under NWP 14, sprinkle on some NWP 12 for utilities, and PRESTO construct an entire island subdivision without mitigation. Those weren't the "good old days". That was the "Stone Age". However, working under PD&EA annual service contracts from 1996 to 2002, I was able to see the attitude of the NCDOT, toward environmental issues, evolve and shift dramatically in the right direction. A much more progressive working environment has been created that fosters environmental responsibility and stewardship. Although there were many people involved, I give the lion's share of the credit to the leadership and management skills of Charles Bruton. He has left us quite a legacy.

There are still some challenges to improve coordination and communication between the Project Development and Environmental Analysis folks in Raleigh and the Operations folks in the Division offices. We have taken many steps in that direction, with the permit specialists in Raleigh providing the DEO with permit drawings, impact summary tables, and green sheets along with the Nationwide permits for TIP projects. This practice has helped ensure that projects are constructed consistent with their permit conditions, as signed compliance certifications are required by the resource agencies at the completion of all permitted projects.

With 600+ Division personnel working in the field on a variety of projects, there is always an opportunity to provide environmental education. Meeting one on one with the transportation workers has been the most gratifying part of my job. I have found them, with few exceptions, to be open to suggestions and wanting to "do the right thing". Taking the time to explain why a certain new prac-

tice is preferable to the old way is often all it takes. We tend to only focus on projects that require permits. However, there are also plenty of activities that do not require permits that merit environmental attention as well. Sometimes the environment might be better served by taking the time to discuss the appropriate protocols for the rinsing of equipment or disposal of excess grout and solvent, in addition to processing permits. Placing check dams in roadside ditches to slow down drainage in certain situations may be a better solution than just upsizing all the downstream pipes. As we endeavor to maintain safe roadways while protecting the environment, basin-wide stormwater management will have to be an area of continued focus.

In summary, the NCDOT has come a long way in the right direction over the last decade of effort. The DEO program has integrated environmental awareness into the Division's daily operations. Substantial compliance with existing local, state and federal laws and regulations is a challenging but attainable goal. Looking throughout the watershed, instead of just concentrating on problem areas, will be required to continue to provide safe facilities for the traveling public while maintaining our commitment to environmental stewardship.



Stormwater management to maintain safe roadways is one of the biggest challenges in Division 4.

2002 Annual Wetland Mitigation Monitoring Reports

By: April Helms, Natural Environment Engineering Unit, Mitigation Specialist
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The Office of Natural Environment annually compiles monitoring reports for each of the Department's mitigation sites. Other units involved in the overall wetland mitigation monitoring process are the Geotechnical Unit and the Roadside Environmental Unit. In 2002, 43 mitigation sites across the state required an annual monitoring report. The reports provide relevant information needed to determine if a mitigation site has been successful.

During January, 2003, reports for the 2002 active mitigation sites were distributed to representatives of the U.S. Army Corps of Engineers (Regional and Division offices), the North Carolina Division of Water Quality, the North Carolina Wildlife Resources Commission, the North Carolina Division of Coastal Management, the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service. Two separate meetings were held on March 11, 2003 and March 12, 2003 to review the status of the individual sites with the various resource agencies. At these meetings, the resource agencies and NCDOT had an opportunity to discuss the progress or problems of each mitigation site. The meetings are designed to provide NCDOT with guidance about the future monitoring of the site.

Two types of monitoring are conducted: hydrologic and vegetation. The type of monitoring required depends upon the success criteria set forth in the original mitigation plans and highway project permit conditions. The hydrologic monitoring involves a system of gauges that collect daily measurements of the groundwater or surfacewater levels. Rainfall data is also collected so that a comparison of rainfall and groundwater/surfacewater can be analyzed. The Geotechnical Unit visits each mitigation site monthly to download the gauges. The compiled gauge data is then sent to the Office of Natural Environment where each gauge's data is carefully analyzed. The Roadside Environmental Unit performs the vegetation monitoring for each mitigation site. Vegetation monitoring involves the identification of tree density and/or percentages of ground cover

within various sample plot locations. Mitigation sites are deemed successful only when both hydrologic and vegetation monitoring have met the prescribed minimum success criteria outlined in the mitigation plan, which is generally three to five years.

In an effort to provide a higher level of customer service, the Office of Natural Environment has placed each of the 2002 wetland mitigation monitoring reports on our website. This system should continue to provide the monitoring reports to the various resource agencies in a timely manner. In addition, it should also reduce future costs of reproduction/distribution of each report. The 2002 reports are located at the following web address: <http://www.ncdot.org/planning/pe/naturalunit/Monitoring/2002Monitoring/2002MonitoringReports.html>

DETOURS

After 30 years of service, it is Charles Bruton's last day at NCDOT! Can you guess which staff member Charles Bruton is kissing?

- | | |
|------------------------|-------------------------|
| A) Bruce Ellis | D) Phil Harris |
| B) Hal Bain | E) Randy Griffin |
| C) Randy Turner | F) Gordon Cashin |



(Answer on Page 11)

Brock's Mill Pond Restoration Project, Jones County, North Carolina
By: Bruce O. Ellis, CLM, PWS, Natural Environment Mitigation Implementation Unit Head
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Brock's Mill Pond is located in Trenton, North Carolina. The 18th Century dam, pond and millhouse are listed on the National Register of Historic Places, and they are contained within the Trenton Historic District. Brock's Mill Pond is also located on the Blue Gray Scenic Byway on NC 58. Brock's Mill Pond has long been an extremely important scenic feature of Jones

County, where the traveling public has stopped to picnic on the way to the North Carolina beaches. It is also the main feature of the Jones County Seal.

The earliest mention of the Brock's Mill Pond was in a deed in 1738. The pond is approximately 120 acres in surface area, where 11 acres are open water and 109 acres are occupied

by old growth hardwood swamp forest. The bulk of the swamp forest is comprised of 100 - 150 year old bald cypress. The old cypresses are draped in Spanish moss and their limbs are covered with resurrection fern. The scene is that of the quintessential southern blackwater swamp forest.



Tropical Storm Dennis, made landfall on Labor Day weekend 1999. The storm malingered in eastern North Carolina, where it dumped copious amounts of rain before it meandered out to sea. Nine days later, Hurricane Floyd, a category two hurricane, made landfall near Cape Fear and followed the same path as Tropical Storm Dennis. Hurricane Floyd dropped an additional 15 inches of rain in 24 hours. This resulted in devastating floods that were responsible for loss of life and extensive property damage.



In June 2000, one of the insidious effects of hurricane

Floyd became manifest. The subsurface structural damage to Brock's Mill Pond dam, caused by the severe flooding from Hurricane Floyd, finally reached the point where the dam failed. The pond drained quickly and completely. The old growth swamp forest was now high and dry.

The pond is privately owned, and as such, only very limited funding was available to reconstruct the dam. The only viable choices remaining to restore Brock's Mill Pond were to sell it to a commercial developer or determine if a public agency was interested. The current owners (descendants of the original owners) preferred to offer the property to a public agency first, since this site has been important to the North Carolina community at large for generations. NCDOT became aware of the project in the fall of 2000 and after some investigation, the Mitigation Implementation Unit of the Project Development and Environmental Analysis Branch decided to pursue this important project and hopefully fund the reconstruction for potential mitigation credits.

In March of 2001 an interagency meeting was held on site with NCDOT, US Army Corps of Engineers, US Fish and Wildlife Service, NC Division of Water Quality, NC Wildlife Resources Commission, and NC Division of Coastal Management. After the meeting NCDOT felt encouraged to take the project to the next level and develop a feasibility study and mitigation plan for the site with the help of Environmental Services, Inc.

When the documentation was complete, it was realized that NCDOT could generate enough mitigation credit to justify the reconstruction costs, but funding fell short of purchasing the property. Since Brock's Mill Pond has such an important value as a historic site, and since it is located on a Scenic Byway, and is one of the main reasons the byway is scenic, it was determined that Transportation Enhancement Program funds should be pursued for the purchase of the property.

Construction funds were granted in the fall of 2002, and Enhancement Program funds were awarded in January 2003. Funding is now complete through the combined effort of two NCDOT and FHWA programs. Once the pond is restored it will be eventually deeded to NC State University. Brocke Mill Pond, protected in perpetuity, will have public access and the swamp forest will be used in NC State's forest education program.

Efforts are now underway to reconstruct the dam before the next hurricane season. It should not be too long before the town of Trenton and Jones County have their historic and scenic gem restored, and the traveling public can enjoy this site, once more, on their way to the beach.

Red-Cockaded Woodpecker Symposium

By: Hal Bain, Natural Environment Biological
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Freshwater Mollusk Workshop

By: John Alderman, Natural Environment
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NCDOT has over the last several years been attempting to improve its ability to proactively approach protected species issues as they relate to transportation projects. Several initiatives have resulted in preservation and management of protected species and their respective habitats in anticipation of future impacts. The red-cockaded woodpecker has been a focus species for NCDOT and has benefited the most to date from our proactive approach.

NCDOT allowed staff to attend the Fourth Red-cockaded Woodpecker (RCW) Symposium held in Savannah, Georgia during the end of January 2003. It had been ten years since the third RCW symposium was held. Over 300 of the nations leaders in RCW recovery, management and research were in attendance. Representatives from many state and federal agencies along with nonprofit organizations and private individuals listened to and presented an overwhelming amount of information that has been documented over the last ten years. Topics ranging from military and private lands initiatives to habitat management and reproductive ecology were covered. The revised recovery plan for the RCW was also signed during the conference and will be lending new guidance for those on the landscape that must deal with protected species and specifically RCW issues.

Information provided at the symposium supported the concept that we can successfully manage habitat and grow RCWs. It became clear that one of the most important remaining challenges for this species and others is in sustaining and increasing not only the numbers but also the locations and sizes of places on the landscape where perpetual resources are available.

This type of learning opportunity is very useful to our staff and ultimately to NCDOT in that up to date information is necessary for better decisions to be made.

North Carolina hosted the 3rd Biennial Freshwater Mollusk Conservation Society Symposium, March 16 - 19, 2003. Janet D'Ignazio, Beth Harmon, Christie Murphy, Cindy Roebuck, Topsy Skinner, Janet Stafford, and every member of NCDOT's Natural Environment Biological Surveys Unit played a major role in ensuring a successful symposium. The NC Department of Transportation was a financial sponsor of the symposium. More than 225 people attended the 4 day event, including representatives from throughout the United States and Canada. The plenary session focused on human population growth and strategies for managing landscapes, including techniques for low impact development, town planning, and smart growth. Special sessions included status and distributions of species, habitat conservation, evolution and phylogenetics, contaminants, life history and ecology, propagation and reproduction, relocation and recovery, GIS, and monitoring. A poster session covered a wide range of topics.

Hats Off to Heather Montague, Matt Haney, and Tom Dickinson

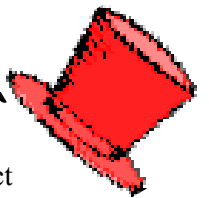
Congratulations Heather, Matt, and Tom on your recent promotions in the Natural Environment Project Management Team, directed by Randy Turner. Heather will be working under the direction of Elizabeth Lusk and Matt and Tom will be working under the direction of Lindsey Riddick. Please join us in congratulating these employees as they transition into their new roles.

Hats Off to Neil Medlin and Racelle Beauregard

Congratulations are also extended to these staff members on their recent promotions in the Natural Environment Biological Surveys Unit, directed by Hal Bain. Please join us in congratulating them as they assume their new roles.

Hats Off to Lindsey Riddick

Congratulations Lindsey! He has been accepted in the Masters of Business Administration Program at North Carolina State University. Lindsey is an Environmental Supervisor in the Natural Environment Project Management Unit.



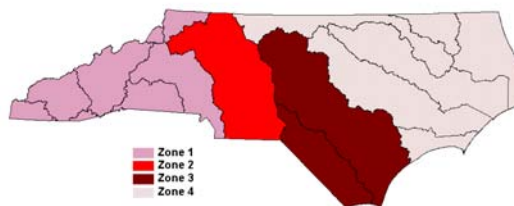
Project Identification Teams for the Ecosystem Enhancement Program

By: Suzanne Klimek, NC Wetlands Restoration Program
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In late October of 2002, a statewide strategy to identify restoration projects to meet mitigation needs for the Ecosystem Enhancement Program (EEP) was agreed upon. This strategy is distinct from but complements another effort to identify preservation projects that will also help meet the EEP's transition needs. It calls for the joint application of resources from the NC Department of Transportation (NCDOT) and the NC Wetlands Restoration Program (NCWRP) to identify project opportunities in specific areas. In this initiative, the state was divided into four areas (or zones) which were determined based on river basin boundaries and the magnitude of EEP transition needs (Figure 1). For each zone, a Project Identification Team (PIT) was assigned with representation from both NCDOT and NCWRP. Table 1 presents the composition of each of these teams. The teams were charged with reviewing the transition needs for their zone in light of existing efforts and assets and developing a strategy for most effectively identifying restoration projects for their area. These strategies are comprised of an appropriate mix of all avenues available to achieve transition goals. These avenues include working with local resource professionals, building on existing watershed planning efforts and relying on private sector resources through full delivery projects.

By the end of November of 2002, all teams had developed their strategies, which were submitted to Ron Ferrell (Program Manager, NCWRP), Bill Gilmore (Transition Manager, EEP) and Charles Bruton (Former Manager, NCDOT Office of Natural Environment) for review and feedback. In December a meeting was held with the program managers and representatives from each team to review the strategies, ask questions, and provide feedback. Dialogue from this meeting resulted in refinement of the teams' strategies, which was completed in January of 2003. During strategy review and refinement, teams were already implementing key efforts to begin the process of project identification. A detailed report on the status of the PIT effort is

Figure 3: Proposed Project Identification Team Zones



due for completion at the end of March. This report will provide an evaluation of each catalog unit within each zone and will include projections for meeting transition targets and recommended alternative strategies for meeting anticipated shortfalls if necessary. Although it is too early in the process of strategy implementation to make a determination regarding the results of the effort, progress is definitely being made and staff look forward to providing a report on that progress at the end of March.

Table 1 PIT Membership for each Zone. Team leaders are listed in bold.

Organization	Zone 1	Zone 2	Zone 3	Zone 4
NCWRP	Jason Guidry Kristin Cozza	Jim Stanfill Jeff Jurek	Hal Bryson Bonnie Duncan Kristin Miguez Cherri Smith	Jocelyn Elliot George Norris Mac Haupt Deborah Sawyer
NCDOT	Phillip Todd	Ed Hajnos	Gene Nocerino Chris Rivenbark	Lynn Smith Leilani Paugh

Goodbye and Congratulations to Locke Milholland

Locke joined the Project Development and Environmental Analysis Branch in 1999. One of his key responsibilities was to work closely with NCDOT staff on articles for the Centerline. Locke did an excellent job with the Centerline since the first issue in April 2000, however the January 2003 issue was Locke's last.

He left the Department in January to pursue further education. Locke has been accepted into the Campbell University Law School Program and will be attending school in the Fall.

Congratulations Locke, we wish you continued success and we will miss you!

NCDOT IMPACTS BUT ALSO PROTECTS A POPULATION OF ROUGH-LEAVED LOOSESTRIFE

By: Dale Suiter, U.S. Fish and Wildlife Service

The North Carolina Department of Transportation (NCDOT) plans to construct a roadway on new location that will connect I-40 with U.S. Highway 17 north of Wilmington in New Hanover County, North Carolina. While conducting a wetland delineation for this project in 1996, Kevin Markham, a biologist with Environmental Services, Inc. (ESI), discovered a population of rough-leaved loosestrife (*Lysimachia asperulaefolia*), a federally endangered plant species, growing in the proposed roadway alignment. Rough-leaved loosestrife is a perennial herb that produces showy yellow flowers from mid-May through June. The stems, ranging in height from a few inches to greater than four feet have multiple whorls of three to four leaves encircling the stem. Rough-leaved loosestrife was listed as federally endangered in 1987 due to the threatened condition of its habitat and the existence of only nine known populations in the wild. At the time of this discovery, this species was known to occur in one county in South Carolina and eleven counties in North Carolina, but it was not known from New Hanover County. This discovery was the first known occurrence of this species in New Hanover County, North Carolina.

As a result of this discovery, NCDOT shifted the alignment in order to avoid impacting the endangered plants and hired ESI to conduct additional environmental work on the new alignment. Rough-leaved loosestrife was also found in the new alignment as well as on a site purchased for wetland mitigation that is adjacent to the proposed corridor. NCDOT met with the U.S. Fish and Wildlife Service (USFWS) regarding their obligations under the Endangered Species Act and decided to proceed with the second alignment and minimize, to the greatest extent possible, impacts to this species. NCDOT submitted their biological assessment addressing impacts to this species in as well as offering conservation measures to protect the species. Conservation measures included purchasing a 90 acre site containing the original

rough-leaved loosestrife plants in order to protect more than 600 stems as well as incorporating the protection and management of rough-leaved loosestrife on the adjacent 622 acre wetland mitigation site.

In February 2003, members of the NCDOT's Project Development and Environmental Analysis Branch, along with staff and volunteers from the North Carolina Botanical Garden (NCBG) removed the rhizomes of those plants that were within the construction limits of the proposed project. The rhizomes were taken to the NCBG where they will be grown in containers until they are ready to be returned to their natural habitat during the winter of 2003-2004. Half of the plants will be returned to suitable areas within the preserve adjacent to the roadway corridor and half will be planted at another site that is yet undetermined. The USFWS applauds NCDOT for their efforts to protect this globally imperiled species.

Recent Permit Acquisitions!

The Natural Environment Project Management Unit is under the direction of Randy Turner.

A job well done!!! Rachelle Beauregard acquired two Individual Permits for the I-85 Project in Durham County (TIP No. I-0306C).

Elizabeth Lusk obtained the permit for Cook Road (TIP No. U-3110). Elizabeth also received one Nationwide 14 permit and two modifications to Individual permits.

Great work by Heather Montague, Rachelle Beauregard, Matt Haney, and Chris Rivenbark who helped acquire 10 Nationwide 23 permits.



rough-leaved loosestrife

Dr. V. Charles Bruton's Retirement Celebration

By: Christie Murphy
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Charles Bruton served his last day as Manager of the Office of Natural Environment on Friday, February 28, 2003. After 30 years of service to the Department, Charles went out in style. A retirement celebration was given in his honor on March 3, 2003 at the Brownstone in downtown Raleigh, N.C. Many longtime friends and colleagues attended the luncheon to both "Roast" and "Toast" his heralded career. His wife, Mary; his children, Dr. Catherine Bruton and Charlie and Kori M. Bruton represented Charles' family; along with his brother, Jim Bruton; three aunts, Jacque Coggins, Helen Poe, Annie Ruth Johnson; and his cousin, Chuck Coggins all attended the retirement celebration.



"Charles and Mary Bruton at the Retirement Celebration"

The ceremony was opened with a continuous picture mirage of Charles during his early years. A buffet lunch was followed by several invited speakers who spoke of the "good ole days" working with Charles and all of his contributions to the Environment and the NCDOT. Phil Harris, with the Office of Natural Environment, served as the Emcee and the invocation prior to the meal was led by Hal Bain, also with the Office of Natural Environment. Speakers consisted of Greg Thorpe, Project Development and Environmental Analysis



"Charles with the Office of Natural Environment logo along with staff signatures."



"Mr. Roger Sheats presenting Charles with The Order of the Long Leaf Pine Award"

Manager; Jim Greenhill, P.E., Former Planning and Environmental Manager; Jerry McCrain, Ph.D., EcoScience Corporation; Marella Buncick, US Fish and Wildlife Service; Bill Gilmore, P. E., EEP Transition Manager; Ken Jolly, Chief of Regulatory, USACOE; Tommy Peacock, P.E., Rummel, Klepper & Kahl, LLP; Mary Bruton; Roger Sheats, Deputy Secretary for the Environment and several of the Office of Natural Environment staff including Hal Bain, Bruce Ellis, Randy Griffin, Kim Annis, Christie Murphy, and Phil Harris.

On this day Charles received three special honors. Mr. Roger Sheats, NCDOT Deputy Secretary for the Environment, presented him The Order of the Long Leaf Pine Award. The NC Department of Transportation named the Wetland Mitigation Site for the US 64 Knightdale Bypass after Dr. Bruton. The site formally known as Mingo Creek will here by be named the V. C. Bruton Mitigation Site. Bruce Ellis, Office of Natural Environment Unit Head, presented an official mitigation site sign to Charles. Two more signs identical to the one presented will be installed at the project site. Ken Jolly presented Charles the Commander's Award for his public service in protecting the state's water resources on behalf of the U.S. Army Corps of Engineers.



"Ken Jolly presenting Charles with the Commander's Award."

Charles is a man that leads and inspires, he is a man that follows his heart, and he is a man that anyone would be proud to know. We wish you much happiness and success in what ever you do. We will miss you dearly!

Employee Spotlights

Jared Gray is an Environmental Specialist with the Office of Natural Environment. He was Born in Clinton, Missouri and his hometown is Paintsville, Kentucky. Jared graduated from Morehead State University with a Bachelors of Science degree in Environmental Science and from Jefferson Davis Junior College with an Associate Degree.

After graduation, Jared held a position with Enviro-Pro as an Environmental Biologist and later took a position as an Environmental Technician with Appian Consulting Engineers, P.A. In October 1998 he joined the Office of Natural Environment as an Environmental Specialist in the Permitting Team. He is currently working with endangered species in the Natural Environment Biological Surveys Unit, headed by Hal Bain. Jared has expertise in endangered species surveys; benthic macroinvertebrate collection, wetland delineation, soils, water quality analysis, and environmental 404/401 permitting.

Jared now resides in Clayton with his wife, Michelle, and their daughter, Maya Mikayla. He enjoys fishing, hunting, basketball, and softball.

Jared Gray



Karen Lynch



Karen Lynch is an Environmental Specialist with the Office of Natural Environment in the Natural Environment Biological Surveys Unit, headed by Hal Bain. She is involved with protected species surveys for plants and animals, stream surveys, and natural resource inventories. Karen was employed with the NC Department of Environment and Natural Resources' Water Quality Section for 14 years before joining NCDOT, Office of Natural Environment.

She received her Bachelor of Science Degree in Wildlife Biology and Fisheries from North Carolina State University. Karen has continued to take additional classes, as a continuing education student, in Botany and Forestry at NC State University. Karen wrote and illustrated "Common Wetland Plants of NC" while working at NCDENR and she is currently working on an illustrated guide for NC freshwater mussels.

Karen grew up in Chapel Hill and now resides in the western part of Wake County. Her hobbies include biking, canoeing, swimming, traveling, water and flower gardening, and watercolor painting. She also enjoys spending time with her fourteen year old son, Wesley and their yellow lab, Blondie and toy fox terrier, Skip.

Recent Staff Additions

The Office of Natural Environment would like to welcome it's new employees.



"Mark Craig"
Natural Environment
Engineering Unit



"Bethany Hunt"
Natural Environment
Engineering Unit



"Brett Feulner"
Natural Environment Project
Management Unit



"Ben Varnedoe"
Natural Environment Project
Management Unit (Intern)

Detour Answer: Randy Griffin, Mitigation Engineering Team Unit Head.

Contact Information

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Our Mission Statement

Each of the teams in the Office of Natural Environment is responsible for natural resource investigations, obtaining environmental permits, developing wetland and stream mitigation plans, and implementing the construction of mitigation sites.

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